

WHAT IS CLAIMED IS:

1. Network level admission control apparatus (D) for a set of communications networks comprising a first network using a protocol at a "sub-IP" level (NSIP) comprising
5 border routers (BR3-k) interconnected by links associated with resources of known characteristics and managed by a first network management system (NMS3), the apparatus being characterized in that it comprises control means (CM) fed by said network management system (NMS3) with
10 data representative of said links between border routers (BR3-k) of said network and of the associated resources, and arranged, in the event of receiving a request to transfer a call via said network (NSIP), which call is associated with at least one service criterion and
15 designates a second communications network (NIP2) connected to said first network and of a different type, to make use of said data to determine whether available resources exist that satisfy the service criterion associated with said call to be transferred, and if so to
20 forward said call transfer request to second control apparatus (S2) connected to a second network management system (NMS2) managing said designated second network (NIP2), with said resources being booked only if resources are available satisfying said service criterion
25 in each of the networks involved by said call.
2. Apparatus according to claim 1, characterized in that said service criterion is selected from a group comprising at least quality of service, ability to
30 protect/restore a link, and security.
3. Apparatus according to claim 2, characterized in that said quality of service is defined by at least one parameter selected from a group comprising at least
35 passband, delay, losses, and jitter.

4. Apparatus according to any one of claims 1 to 3, characterized in that some of said data specifies a mode of management for a link by said network management system (NMS3).

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5. Apparatus according to claim 4, characterized in that said modes are selected from a group comprising at least VPN, optical VPN, and IPSec.

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6. Apparatus according to claim 2 or claim 3, characterized in that some of said data defines restoration links and associated resources.

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7. Apparatus according to any one of claims 1 to 3, characterized in that includes memory (M), and in that said control means (CM) are arranged to store received data in said memory (M) in the form of a connectivity matrix between border routers (BR3-k) of the first network (NSIP).

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8. Apparatus according to any one of claims 1 to 3, characterized in that said control means (CM), are suitable for being coupled to third control apparatus (S1) connected to a third network management system (NMS1) managing a third communications network (NIP1) connected to the sub-IP first network (NSIP) and of a different type, and from which said call transfer request comes.

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9. Apparatus according to any one of claims 1 to 3, characterized in that at least one of said second and third networks (NIP2, NIP1) uses an IP level protocol.

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10. Apparatus according to any one of claims 1 to 3, characterized in that at least one of said second and third networks (NIP2, NIP1) uses a protocol at sub-IP level.

11. Network equipment (S3) suitable for being connected to a network management system (NMS3) managing a communications network using a protocol at sub-IP level (NSIP), the equipment being characterized in that it includes network level admission control apparatus (D) according to any one of claims 1 to 10.
12. The use of the network level admission control apparatus (D) and the network equipment (S3) according to any preceding claim in sub-IP communications networks selected from a group comprising space-division switching networks, WDM networks, TDM networks, and GMPLS networks.